

METHOD FOR DETERMINING A LONGITUDINAL VEHICLE VELOCITY BY COMPENSATING INDIVIDUAL WHEEL SPEEDS USING PITCH ATTITUDE

Abstract

A control system (24) for controlling a safety system (40) of an automotive vehicle includes a plurality of wheel speed sensors (30) generating a plurality of wheel velocity signals, a steering angle sensor (39) generating a steering actuator angle signal, a yaw rate sensor (28) generating a yaw rate signal, a longitudinal acceleration sensor (32) generating a longitudinal acceleration signal and a pitch angle generator generating a pitch angle signal and a controller (26). The controller (26) generates a longitudinal vehicle velocity in response to the plurality of wheel speed signals, the steering angle signal, the yaw rate signal, the lateral acceleration signal and the pitch rate signal. The controller (26) may determine a slip-related longitudinal velocity and a non-slip longitudinal velocity as intermediate steps.